FUNDAMENTALS OF ACOUSTICS

Fourth Edition

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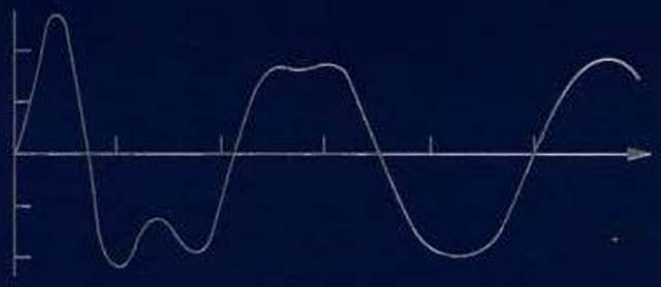

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GLOSSARY OF SYMBOLS

This list identifies some symbols that are not necessarily defined every time they appear in the text.

a	acceleration; absorption coefficient (dB per distance); Sabine absorptivity
a_E	random-incidence energy absorption coefficient
A	sound absorption
AG	array gain
b	loss per bounce; decay parameter
$b(\theta, \phi)$	beam pattern
B	magnetic field; susceptance
BL	bottom loss
$\mathcal{B}$	adiabatic bulk modulus
$\mathcal{B}_T$	isothermal bulk modulus
c	speed of sound
c_g	group speed
c_p	phase speed
C	electrical capacitance; acoustic compliance; heat capacity
$C_{\mathcal{P}}$	heat capacity at constant pressure
$c_{\mathcal{P}}$	specific heat at constant pressure
C_V	heat capacity at constant volume
c_V	specific heat at constant volume
$CNEL$	community noise equivalent level (dBA)
d	detection index
d'	detectability index
D	directivity; dipole strength
DI	directivity index
DNL	detected noise level
DT	detection threshold
$\mathcal{D}$	diffraction factor
e	specific energy
E	total energy
E_k	kinetic energy
E_p	potential energy
EL	echo level
$\mathcal{E}$	time-averaged energy density
$\mathcal{E}_i$	instantaneous energy density
f	instantaneous force; frequency (Hz)
f_r	resonance frequency
f_u, f_l	upper, lower half-power frequencies
F	peak force amplitude; frequency (kHz)
F_e	effective force amplitude
g	spectral density of a transient function; sound-speed gradient; acceleration of gravity; aperture function
G	conductance
$\mathcal{G}$	adiabatic shear modulus
h	specific enthalpy
$H(\theta, \phi)$	directional factor

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